BUSINESS SOLUTIONS
2011 PROGRAM APPLICATION

Follow This Easy Process:

1 Eligibility
Check your eligibility. Qualified measures must be installed at facilities served by Consumers Energy. The facility must have a commercial rate code. Projects must result in an improvement in energy efficiency. Equipment must meet the specifications as explained in the application.

2 Submit an Incentive Application
E-mail, mail or fax a completed copy of the application, including the Application Summary, Customer Information, and Incentive sheets. ***Pre-notification applications are strongly encouraged for all projects and are required for specific measures as well as all custom projects.*** Please include all required documentation including equipment model number and manufacturer specification sheets.

3 Installation
Once you receive your reservation, install the eligible measures on your project and collect all required documentation for submittal.

4 Project Completion (Final Applications)
Once your project is completed, e-mail, mail or fax a signed and completed copy of the application and all required documentation including installed equipment specifications, itemized invoices and, for custom projects, final calculation of energy savings. Calculate your total incentives per measure using the attached forms.

5 Receive your Check
The incentive check will be mailed out six to eight weeks after receipt of a complete final application.

If you are viewing this document in Microsoft Excel, please note that each section of the application is accessible through the tabs at the bottom of the Excel window.

For all calculations to work you must have the Analysis Toolpaks turned on. You can turn them on under the Tools/Ad-ins/ menu.

Send applications to:

E-mail
ConsumersEnergyBusinessSolutions@kema.com

Mail
Consumers Energy Business Solutions
P.O. Box 1040
Okemos, MI 48805

Fax
1-877-607-0738

If you need assistance, please contact our program hotline:
1-877-607-0737

Please visit our website:
www.consumersenergy.com

2011 PROGRAM GUIDELINES

Introduction

Consumers Energy is offering a comprehensive set of incentives under the Business Solutions Program to facilitate the implementation of cost-effective energy efficiency improvements for business customers.
The following instructions provide basic guidance on the completion and submittal of the appropriate documents necessary for the review and approval of Program Personnel. Applicants are urged to download and review the Policies and Procedures Manual, located at www.consumersenergy.com

The program incentive funds are limited. Final Applications for the current program year should be received by Nov. 30, 2011 to qualify for payment in the 2011 program year.

Program and Project Eligibility

The program offers business customers both prescriptive incentives for common energy efficiency measures and custom incentives for other eligible energy efficiency improvements.

The amount of incentives a facility or customer can receive is limited. A facility is defined as contiguous property for which a single customer is responsible for paying the Consumers Energy electricity and/or natural gas bill. The facility must have a commercial rate code.

Measure costs may include the labor necessary to install the measure, and costs related with the disposal of the removed equipment. ***Internal labor costs may not be included in the total project cost.***

Program Year Incentive Limits

Prescriptive Incentives	$100,000 per facility
Custom Incentives	100 percent of the calculated incentive up to $100,000 50 percent of the calculated incentive above $100,000 Maximum $200,000 custom incentive per facility
Customer Incentive Limit	$500,000 across all facilities per customer
Large Gas Customers	$25,000 per facility

Application Process

Pre- Notification

- Pre-notification Applications are strongly encouraged for all projects.
- Required for permanent lamp removal, new T5/T8 fixtures, electronically commutated motor replacement, HVAC energy control management systems, hot water and steam pipe insulation, infrared heaters, roof and wall insulation and all custom measures.
- The Consumers Energy team will review project eligibility and reserve program funds. A reservation does not guarantee an incentive. Incentives will be calculated based on the Final Application.
- Project funds will be reserved for 90 days. Notification is required if your project will take longer than 90 days at Pre-notification submittal.

Final Application

- Completed project applications must be submitted within 60 days of project completion, but no later than 90 days from the reservation date.
- Final Applications must include project documentation, including copies of dated invoices for the purchase and installation of the measures and product specification sheets. The project invoice should provide sufficient detail to separate the individual measure and project cost from the cost of other services such as repairs and building code compliance, as well as show the location where the measures were installed.
- Consumers Energy reserves the right to request additional supporting documentation as deemed necessary to ensure measure eligibility and verify the expected energy savings. Requested information could include: equipment purchase dates, installation dates, proof that the equipment is operational, manufacturer specifications, warranty information, and proof of customer co-payment.
- Applicants are encouraged to call the program hotline if they have any questions about documentation requirements. All Customer information will be held in confidence.
- Once all project information is received, the team will confirm that the project meets the program requirements, perform necessary inspections and/or perform technical reviews.
- The program team will send incentive checks six to eight weeks after project approval.

Inspections

Consumers Energy reserves the right to inspect all projects to verify compliance with the program rules and verify the accuracy of project documentation. This may include pre-installation and/or post-installation inspections, detailed lighting layout descriptions, metering, data collection, and interviews.

APPLICATION INSTRUCTIONS

Important: Please follow the steps below for submitting Application forms.

1. Submit an Incentive Application

• Pre-notification is required for all custom projects, permanent lamp removal, new T8/T5 fixtures, electronically commutated motors, infrared heaters, hot water and steam pipe insulation, roof and wall insulation, and HVAC energy management systems and is highly recommended for all projects. Use the Application Checklist to insure that you have provided all of the correct information.

• Applicants may fill out the Excel spreadsheet and submit it electronically, or print out a copy and either FAX or mail it to the program team.

• The program team will review the applications in the order received and funds will be reserved when the team receives a complete application and determines that the project meets the eligibility requirements . ***Failure to submit a complete application will delay processing of the application and may prevent the payment of incentive funds.***

• The program team will send the applicant a letter acknowledging the project and reservation of incentive funds. Incentive funds are reserved for a specific project and may not be transferred to another project, facility, or customer. Funds are only reserved for 90 days.

2. Installation of equipment

• Make sure that the equipment meets all of the requirements of the specifications and is installed per the Policies & Procedures. ***If you have any questions about the eligibility of your equipment please contact the program team before installation.***

3. Submit the Final Application & required documentation

• Final applications must be submitted within 60 days of project completion or 90 days from the date of reservation, whichever is less. Applications submitted after the deadlines will be ineligible for payment. Final applications must include copies of itemized invoices and receipts which detail specific equipment that corresponds to the incentive measures.

• Use the Application checklist page to make sure that you have supplied all of the required information so that the final application can be processed without delay.

• Consumers Energy Business Solutions reserves the right to request additional supporting documentation to ensure measure eligibility and document the predicted energy savings. This information could include purchase and installation dates, proof that the equipment is operational, manufacturers' specifications, and warranty information. All project specific information will be held in confidence.

4. Program team Final Review

• The Consumers Energy Business Solutions team will conduct a final review of the project application and documentation for eligibility and completeness. Incentive checks will be processed in six to eight weeks after the Final Application is approved.

• Applicants who submit an incomplete application will be notified of any deficiencies and lose their position in the final review process until all requested information is received.

• Incentives cannot be processed for payment until the complete application and all required documentation is received and approved.

• Final complete applications must be submitted by November 30, 2011 to be considered for payment in the 2011 program year.

APPLICATION CHECKLIST

Pre-Application Checklist *Submit the following items for review*	*Final Application Checklist* *Submit the following items for review*	**Incentives for**	
		Prescriptive Measures	**Custom Measures**
Application Summary (page 5)	Application Summary (page 5)	✓	✓
Customer Information (page 6)	Customer Information (page 6)	✓	✓
	Application Agreement (page 7,8)	✓	✓
Measure Worksheet(s)	Measure Worksheet(s)	✓	✓
Existing Equipment Manufacturer Specification Sheets	Existing Equipment Manufacturer Specification Sheets		✓
New Equipment Manufacturer Specification Sheets	New Equipment Manufacturer Specification Sheets	✓	✓
Product Quote	Product Invoices	✓	✓
Baseline Energy Usage Data	Baseline Energy Usage Data		✓
Energy Savings Calculations	Energy Savings Calculations		✓

Application Tips

The following tips may assist in the review and approval of the application:

1. Submit information on any new equipment to Program personnel for review and approval prior to purchase if it is unclear if the equipment meets the requirements of the program.

2. Provide specification sheets or cut sheets on all equipment when possible.
- A manufacturer's specification sheet is provided for each measure installed (e.g. lamp, ballast, controls, refrigerator, freezer, etc.)
- Specification sheets include all measure eligibility requirements
- The model numbers of all installed components match those listed on the invoices

3. Paid invoices should clearly list all equipment purchased and installed, along with quantities and part numbers.
- The invoice is itemized to list each piece of equipment and the related expenses.
- Invoice indicates that it has been paid by the customer (e.g., show zero balance due, stamped paid, or check number and paid date are all included).

4. Customer signature must be on final approval application forms.

5. Provide separate calculations for new T8/T5 fixtures, total watts reduced, or for watts controlled by occupancy sensors.

6. Ensure all entries are legible, and required entries in the forms have been completed.

7. Review the checklist provided prior to submitting an application to ensure that the application is complete and ready for review.

8. If a contractor or other third party is responsible for the installation of the project measures, ensure that the contractor name and contact information is provided for an individual who is knowledgeable about the project.

2011 INCENTIVE APPLICATION SUMMARY

PRE-NOTIFICATION APPLICATION

Required Attachments

- ☐ Customer/Contractor Information Sheet
- ☐ Original Equipment Manufacturers Specifications

Incentives Worksheets

- ☐ Lighting
- ☐ Electric
- ☐ Natural Gas
- ☐ Boiler & Furnace Tune-Up
- ☐ Custom

Application Date: _____

Is this a revised application? ☐ Yes ☐ No

Project # (if revised): _____

Expected Completion Date: _____

Project funds will only be reserved for 90 days from date of Pre-notification

FINAL APPLICATION

Required Attachments

- ☐ Customer/Contractor Information Sheet
- ☐ Signed Final Application Agreement
- ☐ Custom Savings Calculations
- ☐ Itemized Invoices with Equipment Model Numbers
- ☐ Original Equipment Manufacturers Specifications**

Incentives Worksheets

- ☐ Lighting
- ☐ Electric
- ☐ Natural Gas
- ☐ Boiler & Furnace Tune-Up
- ☐ Custom

Application Date: _____

Program Contact: _____

Project #*: _____

**Required for Final Applications that have been reserved*

*** Not required with Final Application if submitted with Pre-Application*

How did you hear about the program?

- ☐ e-Newsletter
- ☐ Contractor
- ☐ Consumers Energy Account Manager
- ☐ Event/Seminar
- ☐ Internet Ad
- ☐ Advertising
- ☐ Other (please list) _____

FOR FINAL APPLICATION ONLY

(If using the Excel version of application, this section is automatically entered from the incentive worksheets)

MEASURE CATEGORY	INCENTIVE AMOUNT
LIGHTING	$ -
ELECTRIC	$ -
NATURAL GAS	$ -
BOILER/FURNACE TUNE-UP	$ -
CUSTOM	$ -
TOTAL INCENTIVES	**$ -**

Total prescriptive incentives cannot exceed the project cost. Custom incentives cannot exceed 50 percent of the total project cost.

2011 INCENTIVE APPLICATION

Important: Please read the terms and conditions before signing and submitting this application. You must complete all information and provide required documentation to avoid processing delays.

CUSTOMER INFORMATION

PRIMARY BUSINESS TYPE *(select one)*

- ☐ Assembly
- ☐ Small Retail
- ☐ Big Box Retail
- ☐ College/University
- ☐ Schools (K-12)
- ☐ Fast Food Restaurant
- ☐ Full Service Restaurant
- ☐ Grocery
- ☐ Hospital
- ☐ Hotel
- ☐ Small Office
- ☐ Large Office
- ☐ Light Industry
- ☐ Heavy Industry
- ☐ Warehouse
- ☐ Miscellaneous

TAX STATUS *(as entered on W9)*

- ☐ Corporation (Inc., PC, Etc...)
- ☐ Tax Exempt
- ☐ Individual
- ☐ Other (may receive 1099)

(describe other) _____

Natural gas provider

- ☐ Consumers Energy
- ☐ DTE Energy
- ☐ Other _____

Electricity provider

- ☐ Consumers Energy
- ☐ DTE Energy
- ☐ Other _____

Project Type

- ☐ Existing Building
- ☐ New Construction
- ☐ Major Renovation

NAME OF APPLICANT'S BUSINESS (MUST MATCH REPORTING TAXPAYER ID #)			
PROJECT NAME (IF APPLICABLE)			
CONSUMERS ENERGY ELECTRIC ACCOUNT # (where measure is installed)		DBA (IF APPLICABLE)	
1000 -			
CONSUMERS ENERGY GAS ACCOUNT # (where measure is installed)		TAXPAYER ID # (SSN/FEIN)	
1000 -			
NAME AS IT APPEARS ON CONSUMERS ENERGY BILL			
NAME OF CONTACT PERSON		TITLE OF CONTACT PERSON	
CONTACT PHONE # EXTENSION	CONTACT FAX #	CONTACT E-MAIL ADDRESS	
INSTALLATION ADDRESS		CITY	STATE / ZIP
MAILING ADDRESS		CITY	STATE / ZIP

CONTRACTOR INFORMATION

NAME OF CONTRACTING COMPANY			
NAME OF CONTACT PERSON		TITLE OF CONTACT PERSON	
CONTACT PHONE # EXTENSION	CONTACT FAX #	CONTACT E-MAIL ADDRESS	
MAILING ADDRESS		CITY	STATE / ZIP

2011 FINAL APPLICATION AGREEMENT

As an eligible Consumers Energy Customer, I certify the indicated energy efficiency measures were installed in 2011. The energy optimization measures are installed in a qualifying facility and not for resale. Additional program terms and conditions may be found in the Policy and Procedures Manual available at www.consumersenergy.com.

I understand that in the event the application received a reservation, that reservation is not a guarantee of payment. Incentive payment will be based upon the Final Application meeting the program terms and conditions.

Selected terms and conditions include, but are not limited to:

- Final Applications and all required documentation must be received within 90 days of reservation confirmation, or 60 days after project completion, whichever is less.
- The program has a limited budget, but is an annual program. Applications will be processed until allocated funds are reserved or spent each program year.
- All equipment must be purchased and installed prior to submitting the Final Application.
- All equipment installed must meet the minimum specifications as stated in the application form and in the program terms and conditions. Failure to meet the minimum specifications will result in disqualification of the measure for incentive payments.
- Applicant agrees to inspection and measurement activities by the utility or its representatives of both project payment and equipment installation for up to five years.
- Incentives may be taxable and the Applicant is solely responsible for the payment of any resulting taxes. Incentives will be reported to the IRS, unless applicant is exempt.
- The Applicant may be required to refund some or all of the incentives if the measures do not remain (or were not) installed for a period of five (5) years or the end of the product life, whichever is less.
- All materials removed, including lamps and PCB ballasts, must be taken out of service permanently and disposed of in accordance with local, state, and federal codes and ordinances. The Applicant is responsible for being aware of any applicable codes or ordinances. Information about hazardous waste disposal may be found at: www.epa.gov/osw/hazwaste.htm.
- For certain measures, the incentive amount will be determined based on the estimated energy savings. The Applicant may be required to provide documentation on energy savings calculations and assumptions. Consumers Energy will make the final determination of the energy savings and thus the incentive amount to be paid.
- Consumers Energy has no obligations regarding and does not endorse or guarantee any claims, promises, work, or equipment made, performed, or furnished by any contractors or equipment vendors that sell or install any energy efficiency measures.

I have read and understand the program requirements and Measure Specifications and Program Guidelines set forth in this application and the program Policy and Procedures Manual and agree to abide by those requirements. Furthermore, I concur that I must meet all eligibility criteria in order to be paid under this program and not receive incentives from any other utility for the same project.

I certify that the information on this application is true and accurate. By submitting this application, I authorize Consumers Energy and its consultants to utilize my account information and project data. I understand this information is confidential and will only be used to evaluate my application for compliance with the program Policy and Procedures Manual.

2011 FINAL APPLICATION AGREEMENT

Important: Please read the Application Agreement before signing and submitting this application. **You must complete all information and provide required additional documentation to avoid processing delays.** For assistance in completing these forms and with the overall application process, please refer to the Application Instructions & Checklist pages.

INCENTIVES REQUESTED

CHECKS WILL BE MADE OUT TO NAME OF APPLICANT'S BUSINESS UNLESS PAYMENT IS RELEASED AS BELOW

TOTAL PROJECT COST	TOTAL INCENTIVES REQUESTED	
COMPANY NAME	CUSTOMER SIGNATURE	
CUSTOMER TITLE	TAXPAYER ID # (SSN/FEIN)	PROJECT #
PRINT NAME	DATE	ACTUAL COMPLETION DATE

FOR FINAL APPLICATIONS, SIGN AND SUBMIT ONLY AFTER ALL EQUIPMENT HAS BEEN INSTALLED.
A CUSTOMER SIGNATURE IS REQUIRED FOR PAYMENT.

PAYMENT RELEASE AUTHORIZATION (OPTIONAL)

Complete this section ONLY if incentive payment is to be paid to an entity other than the Customer.

I am authorizing the payment of the incentive to the third party named below, and I understand that I will not be receiving the incentive payment. I also understand that my release of the payment to a third party does not exempt me from the program requirements outlined in the Measure Specifications, Final Application Agreement, and Terms & Conditions.

Authorized by:

COMPANY NAME	PRINT NAME	DATE
CUSTOMER TITLE	CUSTOMER SIGNATURE	

Check should be made payable to:

PAYEE: COMPANY/INDIVIDUAL NAME		
MAILING ADDRESS		
CITY	STATE	ZIP

CONTACT PHONE NUMBER/EXTENSION	TAX STATUS
TAXPAYER ID # (SSN/FEIN OF PAYEE)	Corporation (Inc., PC, Etc.), Tax Exempt, Individual, Other (May receive 1099)

2011 LIGHTING RETROFIT INCENTIVES WORKSHEET

Equipment Type	Incentive	Unit	# of Units	Incentive Calculated
Compact Fluorescents - ENERGY STAR® qualified				
CFL - Screw In (30 watts or less)	$1.00	Lamp		
CFL - Screw In (31 watts to 115 watts)	$8.00	Lamp		
CFL - Dimmable or 3-way	$8.00	Lamp		
Compact Fluorescent Fixture	$22.00	Fixture		
Light Emitting Diode (LED) Lighting				
LED Interior Fixture replacing incandescent lights	$22.00	Fixture		
LED Lamps replacing incandescent lights	$10.00	Lamp		
Standard Linear Fluorescent Retrofit				
2-foot T12 to T8 or T5 (with ballast)	$3.00	Lamp		
3-foot T12 to T8 or T5 (with ballast)	$3.00	Lamp		
4-foot T12 to T8 or T5 (with ballast) **- Includes U Lamps**	$4.00	Lamp		
8-foot T12 to T8 or T5 (with ballast)	$5.00	Lamp		
8-foot T12 to two (2) 4-foot T8 (with ballast)	$5.00	8 foot Lamp Replaced		
High Performance (HP) and Reduced Wattage (RW) Linear Fluorescent Retrofit				
4-foot T12 to HP or RW T8 (with ballast)	$5.00	Lamp		
4-foot Standard T8 to Reduced Wattage T8 (lamp only)	$0.75	Lamp		
8-foot T12HO to two (2) 4-foot T8HP	$7.00	8 foot Lamp Replaced		
Permanent Lamp Removal* - Pre-notification Application Required				
T12 2-foot Lamp Removal (combined with T8/ballast retrofit)	$4.00	Lamp removed		
T12 3-foot Lamp Removal (combined with T8/ballast retrofit)	$4.00	Lamp removed		
T12 4-foot Lamp Removal (combined with T8/ballast retrofit)	$5.00	Lamp removed		
T12 8-foot Lamp Removal (combined with T8/ballast retrofit)	$10.00	Lamp removed		
Exit Signs, Retrofit or Replacement - ≤ 5 Watt or ENERGY STAR qualified				
LED, T-1, or Electroluminescent Exit Signs	$12.50	Fixture		
Traffic Signals				
LED Traffic Signal	$25.00	Signal		
LED Pedestrian Signal	$25.00	Signal		
Controls				
Lighting Occupancy Sensors	$0.08	per watt controlled		
Central Lighting Controls	$0.06	Square foot		
Switching Controls for Multilevel Lighting	$0.06	Square foot		
Daylight Sensor Controls	$0.09	Square foot		
Exterior Lighting Bi-level Control w/ Override 150W to 1000W HID	$100.00	Fixture		
Exterior High-intensity Discharge (HID) Conversion				
LED or Induction replacing ≤175W HID	$45.00	Fixture		
LED or Induction replacing 176W to 250W HID	$65.00	Fixture		
LED or Induction replacing 251W to 400W HID	$120.00	Fixture		
Parking Garage High-intensity Discharge (HID) Conversion				
LED or Induction replacing ≤175W HID	$100.00	Fixture		
LED or Induction replacing 176W to 250W HID	$150.00	Fixture		
LED or Induction replacing 251W to 400W HID	$180.00	Fixture		

T8/T5 New Interior Fluorescent Fixtures (Includes HID to Fluorescent conversions)* - Pre-notification Application Required
Incentives for new T8/T5 fluorescent fixtures are limited to $0.30/watt reduced or $25 per lamp installed, whichever is lower.

Provide a brief description below including existing fixture model and new fixture model.	Pre		Post					
	# of Fixtures	Watts/ Fixture	# of Fixtures	# of Lamps/ Fixture	Watts/ Fixture	Total Watts Reduced	Incentive	Incentive Calculated
						-	$0.30/Watts Reduced	
						-		
						-		
						-		
						-		
Maximum Incentive - Watts reduced						-		
Maximum Incentive - New lamps installed				-				
Total Incentive - New Fixture Lamps Installed/Watts Reduced							Subtotal	

New T8/T5 fixtures are capped by the total watts reduced ***OR*** lamps installed per project, whichever is less

Total Lighting Incentives:	

All lighting projects are expected to comply with the Illuminating Engineering Society of North America (IESNA) recommended lighting levels or the local code.
Note: PCB ballasts and certain lamps are hazardous materials and must be disposed of in compliance with local requirements.
*** Pre-notification Application is required**

Lighting Equipment specifications are shown on page 15 click here to go there now.

2011 ELECTRIC INCENTIVES WORKSHEET

HVAC INCENTIVES

Equipment Type	Size Category	Qualifying Efficiency	Incentive (per ton)
Unitary (i.e. RTU) and Split Air Conditioning Systems & Air Source Heat Pumps	≤ 65,000 BTU/H (5.4 tons)	14.0 SEER	$30.00
	> 65,000 BTU/H (5.4 tons), ≤ 120,000 BTU/H (10 tons)	12.2 EER	$40.00
	> 120,000 BTU/H (10 tons), ≤ 240,000 BTU/H (20 tons)	12.0 EER	$40.00
	>240,000 BTU/H (20 tons) < 760,000 BTU/H (63 tons)	11.0 EER	$30.00
	> 760,000 BTU/H (63 tons)	10.4 EER	$30.00

Equipment Type	Size Category	Qualifying Efficiency	Incentive (per ton)
Room Air Conditioners	All	Energy Star (Tier 1)	$30.00
Package Terminal Air Conditioner or Heat Pump	All	See Spec (Tier N/A)	$25.00

Equipment Type (dropdown)	Make and Model	EER	SEER or IPLV	HSPF or COP	Unit Size (tons) (A)	Quantity (B)	Incentive Per Ton (C)	Incentive (A*B*C)

Equipment Type	Size Category	Qualifying Efficiency	Qualifying Incentive (per ton)	Incremental Efficiency Unit	Incentive per Incremental Efficiency Unit (per ton)
Ground-source Heat Pump	ALL	EER = 17.0	$30.00	0.1 EER Increase	$1.00
Air-cooled Chiller	ALL	IPLV = 1.04 kW/ton	$30.00	0.01 kW/ton IPLV	$2.00
Water-cooled Chiller	ALL	See Spec	$30.00	0.01 kW/ton IPLV	$2.00

Equipment Type (dropdown)	Make and Model	EER	kW/ton Full Load	kW/ton IPLV	Unit Size (tons) (A)	Quantity (B)	Incentive Per Ton** (C)	Incentive (A*B*C)

Equipment Type	Incentive	Unit	# of Units	Incentive Calculated
HVAC Energy Management Systems (Pre-notification required) **Incentives for HVAC Energy Management Systems are limited to $32,000 per facility**				
Cooling Energy Management System (Consumers Energy Electric Only Customers)	$0.13	Square foot		
Hotel Guest Room Occupancy Sensor* (Electric Heat)	$65.00	Unit		
Demand Control Ventilation (Consumers Energy Electric Only Customers)*	$0.02	Square foot		
Total Electric HVAC Incentives:				$ -

* Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility.

** Total incentive per ton equals the qualifying base incentive per ton plus the incentive per incremental efficiency increase.

Example: 100 ton air-cooled chiller at 1.02 kW/ton

Base incentive is 100 tons x $30/ton = $3,000

Additional incentive is 100 tons x (1.04 – 1.02)/0.01 x $2.00 = $400

Total incentive is $3,400

† Pre-notification is required for HVAC Energy Management System incentive applications

Electric HVAC specifications are shown on page 18. Click here to go there now.

2011 ELECTRIC INCENTIVES WORKSHEET
MISCELLANEOUS INCENTIVES

Equipment Type	Incentive	Unit	# of Units	Incentive Calculated
Energy Efficient Ice Machines				
Energy Efficient Ice Machines, < 500 lbs	$200.00	Unit		
Energy Efficient Ice Machines, 500 to 1,000 lbs	$400.00	Unit		
Energy Efficient Ice Machines, 1,000 to 1,500 lbs	$700.00	Unit		
Commercial Kitchen and Refrigeration				
Walk-in Cooler/Freezer EC Motor replacing Shaded Pole Motor*	$45.00	Motor		
Walk-in Cooler/Freezer EC Motor replacing Permanent Split Capacitor Motor*	$45.00	Motor		
Case Cooler/Freezer EC Motor	$30.00	Motor		
Pre-rinse Sprayers (< 1.6 gpm, Electric Water Heating)	$30.00	Unit		
LED Lighting for Refrigeration Cases	$50.00	Door		
LED Refrigerator Case Lighting Occupancy Sensors	$5.00	Door		
Beverage Vending Machine Controllers	$50.00	Unit		
Anti-sweat Heater Controls	$80.00	Door		
Night Covers	$6.00	Linear foot		
Other				
Network Power Management Software	$12.00	per PC controlled		
Barrel Wraps - Injection Molding and Extruders	$1.00	Ton		
Intelligent Surge Protector	$10.00	Unit		
Compressed Air Engineered Nozzle	$100.00	Unit		
High Efficiency Clothes Washer* (Electric Water Heat, Electric Dryer)	$50.00	Unit		
High Efficiency Clothes Washer* (Electric Water Heat, Gas Dryer)	$50.00	Unit		

Variable Frequency Drives

Equipment Type	Incentive	Unit
VFD on HVAC Fans and HVAC Pumps < 100HP	$60.00	HP
VFD on HVAC Fans and HVAC Pumps ≥ 100HP	$40.00	HP
VFD on Chiller Motors	$40.00	HP
VFD on Process Pumping ≤ 50HP	$60.00	HP

VFD Application (dropdown)	Controlled Motor Size	Quantity	Incentive
Total Electric Miscellaneous Incentives:			**$0.00**

Total Electric Incentives:	

*** Pre-notification is required for EC motor replacement**

Miscellaneous electric specifications are shown on page 19. Click here to go there now.

2011 GAS INCENTIVES WORKSHEET
HVAC INCENTIVES

Equipment Type	Incentive	Unit	# of Units	Incentive
Space Heating Boilers				
Boiler ≥ 0.86 and < 0.90 AFUE or Combustion Efficiency - Level 1	$1.00	kBtu/H		
Boiler ≥ 0.90 AFUE or Combustion Efficiency - Level 2	$2.00	kBtu/H		
Boiler Controls				
Boiler Oxygen Trim Control	$0.25	kBtu/H		
Boiler Modulating Burner Control Retrofit (5:1 turn-down or greater)	$1,250.00	Unit		
Boiler Water Reset Control	$400.00	Unit		
High Efficiency Furnaces				
Replacement High Efficiency Furnace (≤ 200 kBtu/H)	$350.00	Unit		
Replacement High Efficiency Furnace (> 200 kBtu/H)	$1.75	kBtu/H		
HVAC Energy Management Systems (Pre-notification required) **Incentives for HVAC Energy Management Systems are limited to $32,000 per facility**				
Combined Heating and Cooling Energy Management System (Consumers Energy Electric and Natural Gas Customers†)	$0.40	Square foot		
Heating Energy Management System (Consumers Energy Natural Gas Only Customers)	$0.27	Square foot		
Total HVAC Energy Management System Incentive				
Other				
Infrared Heaters* (Consumers Energy Electric and Natural Gas Customers†)	$8.00	kBtu/H		
Infrared Heaters* (Consumers Energy Natural Gas Only Customers)	$5.00	kBtu/H		
Programmable Thermostat*	$50.00	Unit		
Hotel Guest Room Occupancy Sensor* (Consumers Energy Electric and Natural Gas Customers)	$65.00	Unit		
Hotel Guest Room Occupancy Sensor* (Consumers Energy Natural Gas Customers)	$65.00	Unit		
Demand Control Ventilation (Consumers Energy Electric and Natural Gas Customers†)	$0.04	Square Foot		
Demand Control Ventilation (Consumers Energy Natural Gas Only Customers)	$0.02	Square Foot		
Total Gas HVAC Incentives:				

MISCELLANEOUS INCENTIVES

Equipment Type	Incentive	Unit	# of Units	Incentive Calculated
Steam Traps				
Steam Trap Test **(Maximum incentive of $5,000 per facility)**	$5.00	Unit		
Leaking Steam Trap Repair or Replacement	$50.00	Unit		
Pipe Wrap (Pre-notification required) **Space heating pipe wrap incentives are available ONLY for pipe in unconditioned spaces**				
Pipe Wrap - Hydronic Space Heating **(Pre-notification required)**	$4.00	Linear feet		
Pipe Wrap - Steam Space Heating **(Pre-notification required)**	$6.00	Linear feet		
Pipe Wrap - Domestic Hot Water conditioned space **(Pre-notification required)**	$2.00	Linear feet		
Pipe Wrap - Domestic Hot Water unconditioned space **(Pre-notification required)**	$3.00	Linear feet		
Water Heating				
Low Flow Shower Heads (<1.5 gpm) - Gas water heating	$7.00	Unit		
Pre-rinse Sprayers (< 1.6 gpm) - Gas water heating	$30.00	Unit		
Gas Water Heater (≤ 80 gal)	$35.00	Unit		
Gas Water Heater (> 80 gal)	$150.00	Unit		
Gas Tankless Water Heater	$150.00	Unit		
Swimming Pools				
High Efficiency Pool Heater (Gas Heat)	$2.00	MBtu		
Pool Covers	$0.50	SF surface area		
Laundry & Washing Machines				
High Efficiency Clothes Washer* (Gas Water Heat, Electric Dryer)	$50.00	Unit		
High Efficiency Clothes Washer* (Gas Water Heat, Gas Dryer)	$50.00	Unit		
Dry Cleaner Boiler Tune-up (320 - 840 kBtu/H boilers)	$160.00	Unit		
Laundry Ozone Generation System	$39.00	Lb. Washing Machine Capacity		
Miscellaneous Incentives				
Truck Loading dock door seals new installation only	$200.00	Door		
Truck Loading dock leveler ramp pit air seals - no existing seals	$100.00	Door		
Greenhouse Heat Curtains	$0.20	Square Foot		
Greenhouse Infrared Film	$0.05	SF surface area		
High Efficiency Process Boiler Replacement (Hot water or Steam)	$2.00	kBtu/H		
Wall Insulation (Gas heat applications only) **(Pre-notification required)**	$0.50	Square Foot		
Flat Roof Insulation (Gas heat applications only) **(Pre-notification required)**	$0.20	Square Foot		
Attic Roof Insulation (Gas heat applications only) **(Pre-notification required)**	$0.15	Square Foot		
Flexible Batch Broilers	$550.00	Unit		
Commercial Conveyor Oven (< 25" total conveyor width)	$400.00	Unit		
Commercial Conveyor Oven (> 25" total conveyor width)	$500.00	Unit		
Total Misc. Gas Incentives:				

Total Natural Gas Incentives:	

* Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility.

† Customer must be receiving both electric and natural gas service from Consumers Energy to qualify for the larger incentive

Natural Gas Equipment Specifications are shown on page 23. Click here to go there now.

2011 TUNE-UP INCENTIVE WORKSHEET

Forced Air Gas Furnace or Rooftop Unit (RTU) Tune-up Specification
Unit must have a minimum input of 40 kBtu/H. Contractor must complete a tune-up checklist for each unit serviced. A single unit with multiple burners or modules is considered one unit. A rooftop unit is considered one unit. A burner that is dual fuel is considered one unit. For RTUs and furnaces completing the checklist is required, but pre/post tune-up measurements are not required. The incentive is available once in a 24-month period.

Space Heating Boiler Tune-up
Incentive is only available for natural gas space-heating boilers. The minimum burner size for measure eligibility is 110 kBtu/H. The incentive is available once in a 24-month period. The service provider must perform before and after combustion efficiency tests and record the results on the boiler tune-up incentive application. Burner must be adjusted to improve combustion efficiency as needed. The incentives are only available for equipment used in space heating conditions. Equipment for domestic hot water, pool/spa use or process load does not qualify. Details of documentation requirements are provided in the program Policies and Procedures Manual.

Process Boiler Tune-up
Incentive is only available for natural gas process boilers. The minimum burner size for measure eligibility is 500 kBtu/H. The incentive is available once in a 24-month period. The service provider must perform before and after combustion efficiency tests and record the results on the boiler tune-up incentive application. Burner must be adjusted to improve combustion efficiency as needed. Boilers used primarily for domestic hot water, space heating, or pool/spa use are not eligible. Details of documentation requirements are provided in the program Policies and Procedures Manual.

Tune-up Documentation (Submit one sheet per tune-up)

Site Name	Manufacturer	Date of Tune-up
Customer Contact Name	Model Number	Work order/PO number
Customer Contact Phone Number	Serial Number	Unit Input Capacity (kBtu/Hr)
Company Performing Tune-up	Type (Boiler or Furnace)	Annual Hours of Operation
Technician Performing Tune-up		

- ☐ Measure pre/post combustion efficiency using electronic flue gas analyzer
- ☐ Include a copy of the combustion analyzer test
- ☐ Adjust air flow and reduce excessive stack temperatures
- ☐ Adjust burner and gas input, manual or motorized draft control
- ☐ Clean burners, combustion chamber and heat exchanger surfaces
- ☐ Clean and inspect burner nozzles
- ☐ Check for proper venting
- ☐ Complete visual inspection of system piping and installation
- ☐ Check safety controls
- ☐ Check adequacy of combustion air intake
- ☐ Measure pre/post combustion efficiency using electronic flue gas analyzer
- ☐ Provide the following data:

	Before	After
Combustion Efficiency		
Stack Temperature		
Oxygen Level		
Carbon Dioxide		
Carbon Monoxide		

Equipment Type	Incentive	Unit	# of Units	Incentive Calculated
Gas Forced Air Furnace/Rooftop Unit Tune-up				
Gas Furnace or RTU Tune-up (40 - 110 kBtu/h)	$18.00	Unit		
Gas Furnace or RTU Tune-up (> 110 - 300 kBtu/h)	$48.00	Unit		
Gas Furnace or RTU Tune-up (> 300 - 500 kBtu/h)	$95.00	Unit		
Gas Furnace or RTU Tune-up (> 500 kBtu/h)	$178.00	Unit		
Space Heating Boiler Tune-up				
Boiler Tune-up Level 1 (110 - <500kBTU/h)	$150.00	Unit		
Boiler Tune-up Level 2 (500 - <1200 kBtu/h)	$250.00	Unit		
Boiler Tune-up Level 3 (≥ 1200 kBtu/h)	$350.00	Unit		
Process Boiler Tune-up				
Boiler Tune-up Level 4 (500 - <1200kBTU/h)	$350.00	Unit		
Boiler Tune-up Level 5 (≥1200 kBtu/h)	$500.00	Unit		
Total Tune-up Incentives:				

Please attach supporting documentation as described in the Policies and Procedures Manual.

2011 CUSTOM INCENTIVES WORKSHEET

Pre-notification is required

Please attach supporting documentation as described in the Policies and Procedures Manual.

Energy Cost		
Electricity		($/kWh)
Gas		($/MCF)

Please enter your Energy Cost. Do not leave blank.

Item 1				
Description		Annual kWh Savings	$/kWh	Subtotal
Before Retrofit	After Retrofit			
		Annual MCF Savings	$0.08	
		Measure Cost	$/MCF	
		Payback Period*	$5.00	

Item 2				
Description		Annual kWh Savings	$/kWh	Subtotal
Before Retrofit	After Retrofit			
		Annual MCF Savings	$0.08	
		Measure Cost	$/MCF	
		Payback Period*	$5.00	

Item 3				
Description		Annual kWh Savings	$/kWh	Subtotal
Before Retrofit	After Retrofit			
		Annual MCF Savings	$0.08	
		Measure Cost	$/MCF	
		Payback Period*	$5.00	

Item 4				
Description		Annual kWh Savings	$/kWh	Subtotal
Before Retrofit	After Retrofit			
		Annual MCF Savings	$0.08	
		Measure Cost	$/MCF	
		Payback Period*	$5.00	

Total Custom Measure Cost:	
Total Custom Incentives:**	

Note: Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility unless there are both electric and gas savings.

*Payback Period must be greater than or equal to one and less than or equal to eight years to receive the incentive.

**Total Custom Incentives cannot exceed 50 percent of the total custom project cost.

$$\text{Payback period} = \frac{\text{Incremental Measure Cost}}{(\text{Annual kWh saved} \times \text{Electricity Rate}) + (\text{Annual MCF saved} \times \text{Gas Rate})}$$

Custom Specifications are shown on page 27. Click here to go there now.

2011 LIGHTING SPECIFICATIONS

All lighting projects are expected to comply with the Illuminating Engineering Society of North America (IESNA) recommended lighting levels or the local code.

Compact Fluorescent Lamps, Screw In (≤ 30 Watts)
Screw in CFLs must be ENERGY STAR® rated lamps or meet ENERGY STAR criteria. The lamps must have ≥ 50 lumens per watt. Note: **This incentive is not available for CFLs discounted by any utility company and purchased at retail stores participating in the CFL discount program. Incentives for CFLs purchased from those retailers are included in the discounted price. (Discounted CFLs are identified at point of purchase)**

Compact Fluorescent Lamps, Screw In (31 Watts - 115 Watts)
High wattage CFLs must replace existing incandescent lamps. The lamp must have ≥ 65 lumens per watt. **Note: This incentive is not available for CFLs discounted by any utility company and purchased at retail stores participating in the CFL discount program. Incentives for CFLs purchased from those retailers are included in the discounted price. (Discounted CFLs are identified at point of purchase)**

Compact Fluorescent Lamps - Dimmable or 3-way
CFLs must replace existing incandescent lamps. The lamp must have ≥ 45 lumens per watt. **Note: This incentive is not available for CFLs discounted by any utility company and purchased at retail stores participating in the CFL discount program. Incentives for CFLs purchased from those retailers are included in the discounted price. (Discounted CFLs are identified at point of purchase)**

Compact Fluorescent Fixtures
Incentives are available for interior hardwired compact fluorescent fixtures. Only complete new fixtures or modular hardwired retrofits with hardwired electronic ballasts qualify. The compact fluorescent ballast must be programmed start or programmed rapid start with a power factor (PF) ≥ 90 and a total harmonic distortion (THD) ≤ 20 percent.

Light Emitting Diode (LED) Fixtures
Incentives are available for interior hardwired LED fixtures. Only complete new fixtures or modular hardwired retrofits for interior applications qualify. Eligible fixtures could include recessed downlights, track lighting fixtures and pendant fixtures. All LED lighting technologies must be listed as an approved product for their specific purpose by ENERGY STAR or the Design Lights Consortium. If the fixture is not ENERGY STAR labeled, qualified third party test results must be submitted for consideration. Testing must conform to IESNA LM-79-08 and/or LM-80-08 Electrical and Photometric Measurement of Solid State Lighting Products. Tube type LED fixtures intended as replacements for tube type fluorescent lighting are not eligible for incenitives.

LED Lamps
The incentive is available for both screw in or plug in style bulbs used as replacements for incandescent lamps in interior applications. Incentive is available for replacement of incandescent lamps rated 20-100 watts. All LED lamps must be listed as an approved product for their specific purpose by ENERGY STAR or the Design Lights Consortium. If the lamp is not ENERGY STAR labeled, qualified third party test results must be submitted for consideration. Testing must conform to IESNA LM-79-08 and/or LM-80-08 Electrical and Photometric Measurement of Solid State Lighting Products. Tube type LED lamps intended as replacements for tube type fluorescent lighting are not eligible for incenitives.

Standard Linear Fluorescent Retrofit
Incentives are available for replacing existing T12 lamps and magnetic ballasts with T8 or T5 lamps and electronic ballasts. The new fixture lamps must have a color rendering index (CRI) ≥ 80. The electronic ballast must be high frequency (≥20 kHz), UL listed, and warranted against defects for a minimum of five years. Ballasts must have a power factor (PF) ≥ 0.90. Ballasts for 4-foot lamps must have total harmonic discharge (THD) ≤ 20 percent at full power output. For 2-foot and 3-foot lamps, ballasts must have THD ≤ 32 percent at full light output. A manufacturer's specification sheet must accompany the application.

High Performance 4-foot T8 Lamp and Ballast
Incentives are available for replacing existing T12 lamps and magnetic ballasts with high performance T8 lamps and electronic ballasts. This measure is based on the Consortium for Energy Efficiency (CEE) high performance T8 specification (www.cee1.org) and is summarized in Table 1 below. A list of qualified lamps and ballasts may be found at: http://www.cee1.org/com/com-lt/com-lt-main.php3. Both the lamp and ballast must meet the specification in order to qualify for an incentive. A manufacturer's specification sheet must accompany the application. Replacement of existing T8/T5 lamps and/or fixtures is not eligible for this incentive.

Table 1: High Performance T8 Specifications

High Performance T8 and T5 Characteristics				
Mean System Efficiency	≥ 90 Mean Lumens per Watt (MLPW) for Instant Start Ballasts			
	≥ 88 MLPW for Programmed Rapid Start Ballasts			
Performance Characteristics for Lamps				
Color Rendering Index (CRI)	≥ 80			
Minimum Initial Lamp Lumens	≥ 3100 Lumens *			
Lamp Life	≥ 24,000 Hours			
Lumen Maintenance or Minimum Mean Lumens	≥ 94% or ≥ 2900 Mean Lumens			
Performance Characteristics for Ballasts				
Ballast Efficiency Factor (BEF) BEF = (BFx100)/Ballast Input Watts	**Instant Start Ballast (BEF)**			
	Lamps	Low BF ≤ 0.85	Norm 0.85 < BF ≤ 1.0	High BF ≥ 1.01
	1	> 3.08	> 3.11	NA
	2	> 1.60	> 1.58	> 1.55
	3	≥ 1.04	≥ 1.05	≥ 1.04
	4	≥ 0.79	≥ 0.80	≥ 0.77
	Programmed Rapid Start Ballast (BEF)			
	1	≥ 2.84	≥ 2.84	NA
	2	≥ 1.48	≥ 1.47	≥ 1.51
	3	≥ 0.97	≥ 1.00	≥ 1.00
	4	≥ 0.76	≥ 0.75	≥ 0.75
Ballast Frequency	20 to 33 kHz or ≥ 40 kHz			
Power Factor	≥ 0.90			
Total Harmonic Distortion	≤ 20%			

* For lamp with color temperatures ≥ 4500k. 2950 minimum initial lamp lumens are allowed.

Reduced Wattage 4-foot T8 Lamp and Ballast

Incentives are available for replacing T12 systems with reduced wattage lamp and electronic ballast systems. The lamps and ballasts must meet the Consortium for Energy Efficiency (CEE) specification (www.cee1.org) and summarized in the table below. Qualified lamps and ballast products may be found at http://www.cee1.org/com/com-lt/com-lt-main.php3. Both the lamp and ballast must qualify in order to receive an incentive for the system. A manufacturer's specification sheet must accompany the application.

Reduced Wattage 4-foot T8 Lamps (Lamps Only)

Incentives are available when replacing 32 Watt T8 lamps with reduced wattage T8 lamps when an electronic ballast is already present. The lamps must be reduced wattage in accordance with the Consortium for Energy Efficiency (CEE) specification (www.cee1.org) and summarized in Table 2 below. Qualified product may be found at http://www.cee1.org/com/com-lt/com-lt-main.php3. The nominal wattage must be 28W (≥ 2585 Initial Lumens) or 25W (≥ 2400 Initial Lumens) to qualify.

Table 2: Reduced Wattage 4-foot Lamps and Ballasts

Performance Characteristics for Lamps(1)		
Mean System Efficacy	≥ 90 MLPW	
Color Rendering Index (CRI)	≥ 80	
Minimum Initial Lamp Lumens	≥ 2585 Lumens for 28 W	
	≥ 2400 Lumens for 25 W	
Lamp Life(2)	≥ 18,000 hrs at three hours per start	
Lumen Maintenance –or- Minimum Mean Lumens(3)	≥ 94% -or- ≥ 2430 Lumens for 28 W ≥ 2256 Lumens for 25 W	
Performance Characteristics for 28 and 25 W Ballasts		
Ballast Frequency	20 to 33 Hz or ≥ 40 kHz	
Power Factor	≥ 0.90	
Total Harmonic Distortion	≤ 20%	
Performance Characteristics for Ballasts(4), 28 W systems		
Ballast Efficiency Factor (BEF)	Instant Start Ballast (BEF)	
BEF = (BF x 100)/Ballast Input Watts Based on: (1) Type of ballast (2) No. of lamps driven by ballast (3) Ballast Factor	Lamps	All BEF Ranges
	1	≥ 3.52
	2	≥ 1.76
	3	≥ 1.16
	4	≥ 0.88
Performance Characteristics for Ballasts(4), 25 W systems		
Ballast Efficiency Factor (BEF)	Instant Start Ballast (BEF)	
BEF = (BF x 100)/Ballast Input Watts Based on: (1) Type of ballast (2) No. of lamps driven by ballast (3) Ballast Factor	Lamps	All BEF Ranges
	1	≥ 3.95
	2	≥ 1.98
	3	≥ 1.32
	4	≥ 0.99

(1) Lamps ≥ 4500 K and/or 24,000 hours have a system efficiency specified ≥ 88 MLPW. Minimum initial and mean lumen levels are specified as follows: for 28 W lamps, limits are 2600/2340. For 25 W lamps, limits are 2300/2185.

(2) Life rating is based on an instant start ballast tested in accordance with ANSI protocols. When used for Program Start Ballast, life may be increased depending upon the operating hours per start.

(3) Mean lumens measures at 7,200 hours

(4) Multi-voltage Ballasts must meet or exceed the listed Ballast Efficiency Factor when operated on at least one of the intended operating voltages.

Permanent Lamp Removal (Pre-notification is required)
Incentives are available for the permanent removal of existing fluorescent lamps. Permanent lamp removal is the net reduction in the quantity of lamps after a project is completed. Customers are responsible for determining whether or not to use reflectors in combination with lamp removal in order to maintain adequate lighting levels. Lighting retrofits are expected to meet the Illuminating Engineering Society of North America (IESNA) recommended light levels. Unused lamps, lamp holders, and ballasts must be removed permanently from the fixture and disposed of in accordance with local regulations. This measure is applicable when retrofitting from T12 lamps to T8 lamps only. Removal of lamps from a T12 fixture that is not being retrofitted with T8 lamps is not eligible for this incentive.

Exit Signs
High-efficiency exit signs must replace or retrofit an existing incandescent exit sign. Electroluminescent, T1, and light-emitting diode (LED) exit signs are eligible under this category. Non-electrified and remote exit signs are not eligible. All new exit signs or retrofit exit signs must be UL or ETL listed, have a minimum lifetime of 10 years, and have input wattages ≤ 2.5 Watts per face or ≤ 5 watts/sign.

LED Traffic and Pedestrian Lights
Incentives are available for LED traffic lights on a per-signal basis (including arrows) that replace or retrofit an existing incandescent traffic signal. At minimum, red and green lamps must be retrofitted to qualify for the signal incentive. Signals shall have a maximum LED module wattage of 17. Incentives are not available for spare lights. Lights must be hard-wired, with the exception of pedestrian hand signals.

Lighting Occupancy Sensors
Passive infrared, ultrasonic detectors and fixture-integrated sensors or sensors with a combination thereof are eligible. All sensors must be hard-wired and control interior lighting fixtures. To assist in incentive processing, please provide the inventory of the controlled fixtures with the Final Application. Incentives are not available for occupancy sensors that control lights with instant start type ballasts. **Lighting schedules must be submitted with the final application in order to receive the incentive.**

Central Lighting Control
Incentives are available for automated central lighting control systems with override capabilities. The occupants' schedule of operation must be taken into consideration when programming the system. This measure includes time clocks, package programmable relay panels, and complete building automation controls. Photo sensors may also be incorporated into the central lighting control system. Incentive is calculated per square foot of lighting controlled. **Floor plans and lighting schedules must be submitted with the final application in order to receive the incentive.**

Switching Controls for Multilevel Lighting
This measure should be used with daylight or occupancy sensors and is applicable to spaces that require various lighting schemes (ex. classrooms, auditoriums, conference rooms). Multilevel lighting switching controls also are applicable to warehouse settings with skylights, where they can be combined with occupancy sensors and/or daylight controls. When combined with daylight or occupancy sensors, commissioning is highly recommended to ensure proper performance of the switching controls. Incentive is calculated per square foot of lighting controlled. **Floor plans and lighting schedules must be submitted with the final application in order to receive the incentive. When applying for multilevel lighting controls you cannot also receive incentives for lighting occupancy sensors or daylight sensor controls on the same fixtures.**

Daylight Sensor Controls
Incentives are available for daylight sensor controls in spaces with reasonable amounts of sunlight exposure and areas where task lighting is not critical. The controls can be on/off, stepped, or continuous (dimming). The on/off controller should turn off artificial lighting when the interior illumination meets the desired indoor lighting level. The stepped controller generally dims the artificial lighting 50 percent when the interior illumination levels reach 50 percent of the desired lighting levels. Continuous or dimming controllers dim artificial lighting proportional to the available daylight. All types of daylight sensor controls are required to be commissioned in order to ensure proper sensor calibration and energy savings. Incentive is calculated per square foot of lighting controlled. **Floor plans and lighting schedules must be submitted with the final application in order to receive the incentive.**

Exterior Lighting, Bi-Level Control with Override
Incentives are available for installing exterior bi-level controls to HID lighting that reduce lighting levels by at least 50 percent when the space is unoccupied. The HID lighting must have an electronic ballast capable of reduced power levels, and be coupled with motion sensors to bring the light back to full lumen output for security reasons. The controls include on/off controls, dimmers, and hi-lo ballast controls. This measure is applicable to exterior fixtures that are on during the night.

Exterior HID to LED/Induction Lighting Retrofit
Incentives are available in exterior or garage applications for replacing existing high intensity discharge fixtures with LED or induction fixtures. Fixture replacement must result in at least a 40 percent power reduction. LED fixtures should have a minimum efficacy of 35 lumens per watt. Applications include canopy lighting and wall packs. This measure is applicable to exterior fixtures that are typically on about 12 hours a day. Photocells or time clocks should be utilized at facilities that do not control exterior fixtures during daylight hours.

Parking Garage HID to LED/Induction Lighting Retrofit
Incentives are available in parking garage applications for replacing existing high intensity discharge fixtures with LED or induction fixtures. Fixture replacement must result in at least a 40 percent power reduction. LED fixtures should have a minimum efficacy of 35 lumens per watt. Applications include canopy lighting and wall packs. This measure is applicable to exterior fixtures that are typically on about 20 hours a night. Photocells, time clocks or motion sensors should be utilized at facilities that do not control exterior fixtures during daylight hours.

New T8/T5 Fluorescent Fixtures (Pre-notification is required)
This measure consists of replacing one or more existing fixtures with new fixtures containing T8 or T5 lamps and electronic ballasts. The T8 or T5 lamps must have a color rendering index (CRI) ≥ 80. The electronic ballast must be high frequency (≥ 20 kHz), UL listed, and warranted against defects for five years. Ballasts must have a power factor (PF) ≥ 0.90. Ballasts for 4-foot lamps must have total harmonic distortion (THD) ≤ 20 percent at full light output. For 2-foot and 3-foot lamps, ballasts must have THD ≤ 32 percent at full light output. High output T5/T8 lamps also qualify for this incentive. Specifications of the new fixtures, lamps and ballasts, must accompany the final application. If specification sheets are not included, the default fixture wattages provided in Tables 4-6 will be used instead. **Incentives for new T8/T5 fixtures are limited to no more than $25 per lamp installed or $0.30 per watt reduced - whichever is less. Applications must include the manufacturers specifications to validate the number of lamps installed.**

2011 HVAC (ELECTRIC) SPECIFICATIONS

Unitary (i.e. RTU) and Split Air Conditioning Systems and Air Source Heat Pumps

New unitary air conditioning units or air source heat pumps that meet or exceed the qualifying cooling efficiency shown in the HVAC Electric Incentives worksheet are eligible for an incentive. They may be either split systems or single package units. The efficiency of split systems is based on an ARI reference number. Water-cooled systems, evaporative coolers, and water source heat pumps do not qualify as prescriptive measures, but may qualify for a custom incentive. All packaged and split system cooling equipment must meet Air Conditioning and Refrigeration Institute (ARI) standards (210/240, 320 or 340/360), be UL listed, use a minimum ozone-depleting refrigerant (e.g., HCFC or HFC). A manufacturer's specification sheet indicating the system efficiency must accompany the application. Disposal of the existing unit must comply with local codes and ordinances. Incentives for heat pumps are available only for the replacement of an existing heat pump.

Room Air Conditioners

Room air conditioning units are through-the-wall (or built-in) self-contained units that are two tons or less. There are two eligible efficiency levels as listed by the CEE (www.cee1.org). A unit must qualify under ENERGY STAR® standards. The minimum requirements and eligible equipment are listed in the CEE high efficiency room air conditioning specifications (www.cee1.org). These units are with and without louvered sides, without reverse cycle (i.e., heating), and casement. The qualifying efficiencies are provided in Table 1 below. Disposal of existing unit must comply with local codes and ordinances.

Table 1: Qualifying AC efficiencies

Size (BTU/H)	2000 ENERGY STAR (EER)
< 8,000 (< 0.67 tons)	10.7
8,000 - 13,000 (0.67 - 1.08 tons)	10.8
14,000 - 19,999 (1.2 - 1.67 tons)	10.7
≥ 20,000 (>1.67 tons)	9.4

Package Terminal AC and Heat Pump Units (PTAC/PTHP)

Equipment must be through-the-wall self contained units that are two tons (24,000 BTU/H) or less. Elibible systems must have an EER greater than or equal to 12.5 – (0.213 * Capacity / 1000) where capacity is the size of the unit in BTU/H, unless the size of the unit is below 7,000-BTU/H, in which case 7,000-BTU/H is to be used as capacity, or unless the size of the unit is greater than 15,000-BTU/H, in which case 15,000-BTU/H is to be used as capacity, as defined by ASHRAE. All EER values must be rated at 95°F outdoor dry-bulb temperature.

Ground-source Heat Pumps

New ground-source heat pumps that meet or exceed the qualifying Energy Efficiency Ratio (EER) and Coefficient of Performance (COP) as listed in the HVAC Incentive Worksheet Table are eligible for an incentive. Equipment with an EER equal to 17 receive a fixed incentive; equipment with an EER value greater than the qualifying value will be paid per 0.1 EER incremental increase. All equipment must meet Air Conditioning and Refrigeration Institute (ARI) standards (325 or 330) and be UL listed. EER is the efficiency at standard (ARI/ISO) conditions of 77°F entering water for closed-loop models and 59°F entering water for open-loop systems. A manufacturer's specification sheet indicating the system efficiency for cooling and heating must accompany the application. Disposal of the existing unit must comply with local codes and ordinances. Incentives for heat pumps are available only for the replacement of an existing heat pump.

Air- and Water-cooled Chillers

Chillers are eligible for an incentive if they have a rated kW/ton for the Integrated Part Load Value (IPLV) and/or EER that is less than or equal to the qualifying Level 1 (10 percent below IECC 2006 standard) efficiency shown in the table below. The chiller efficiency rating must be based on ARI Standard 550/590-2003 for IPLV. The chillers must meet ARI standards 550/590-2003, be UL listed, and use a minimum ozone-depleting refrigerant (e.g., HCFC or HFC). The ARI net capacity value should be used to determine the chiller tons. A manufacturer's specification sheet with the kW/Ton-IPLV or COP-IPLV must accompany the application. Qualifying efficiencies for chillers are summarized in Table 2 below. There is a fixed incentive for reaching the minimum qualifying efficiency, and incremental incentives for every 0.1 kW/ton-IPLV reduction from the minimum required.

Table 2: Water Cooled Qualifying Chiller Efficiencies (kW/ton)

Equipment Category	Capacity Range (BTU/H)	IPLV
Screw, Scroll, or Helical-rotary	< 75 tons	0.57
	75 - 149 tons	0.55
	150-300 ton	0.52
	> 300 ton	0.49
Centrifugal	< 300 tons	0.54
	300 - 599 tons	0.49
	> 600 tons	0.49
Reciprocating	< 75 tons	0.57
	75 - 149 tons	0.55
	150-300 ton	0.52
	> 300 ton	0.49

HVAC Energy Management System Specification (Pre-notification required)
Incentives are available for existing buildings that currently have no digital automated HVAC controls or outdated pneumatic control systems with inoperable time control functions. Existing HVAC control systems cannot have time of day scheduling (including 7-day programmable thermostats). Upgrading obsolete EMS HVAC system with inoperable time clock functions will be reviewed on a case-by-case basis for incentive eligibility. Buildings upgrading existing digital EMS systems are not eligible for prescriptive incentives.

HVAC EMS systems must be new and include (a) central time control, (b) real-time outside air damper positioning, (c) graphic operator interface, (d) whole building real-time power and energy monitoring capability, (e) open-protocol architecture, (f) web-based interface, (g) PC based controls, (h) have a minimum setback space temperature of at least 8°F in both heating and air condition mode, (i) minimum setback period must exceed 2,200-hours per year, and (j) at least three "enhanced" control strategies, (i.e.: critical zone hydronic heating supply temperature reset, AHU fan control, exhaust fan control, etc). Open-protocol architecture controls system shall consist of either LonTalk (ANSI/CEA 709.1) or BACNet (ASHRAE/ANSI 135) protocol being used between all controlled and controlling devices and every node on the network. If incorporated with Demand Control Ventilation, real-time carbon-dioxide monitoring at the operator interface is required. Buildings must have more than 10,000-ft2 of controlled heating space to be eligible for this prescriptive incentive. The maximum incentive available for this measure is $32,000 per facility as defined in the policies and procedures manual or 50% of the installed cost of the measure, whichever is less.

Pre-notification application must include proposed EMS sequence of operations, scaled floor-plan of building with controlled area highlighted, specifications of proposed EMS system, and estimated cost for the proposed EMS system.

Hotel Guest Room Occupancy Sensor (Electric Heat)
Incentives are available for sensors that control heat pumps, and other electric heating units for individual hotel rooms. Sensors controlled by a front desk system are not eligible. Sensors must be controlled by automatic occupancy detectors, and it is recommended that during unoccupied periods, the default setting for controlled units differ by at least 8 degrees from the operating set point. The incentive is per guest room controlled, not per sensor. For multiroom suites the incentive is available per room controlled, if a sensor is installed in each room. Replacement or upgrades of existing occupancy-based controls are not eligible as a prescriptive incentive.

Demand Control Ventilation
Install ventilation controls on existing buildings that use carbon dioxide levels to measure occupancy and modify the percentage of outside air based on variable levels. Only buildings with cooling applications are eligible. Conditioned spaces must be kept between 65ºF and 75ºF during operating hours. Systems must have current fresh air requirements equal or greater to 10 percent of supply air requirements. Carbon dioxide (CO_2) sensors must be installed in conjunction with fully functioning air side economizers. Controlled space must meet the minimum requirements of the current ASHRAE 62 standard, as well as all local building codes, and manufacturer's recommendations. The incentive is calculated per square foot of area controlled. Must submit floor plan with Final Application.

2011 MISCELLANEOUS (ELECTRIC) SPECIFICATIONS

Energy Efficient Ice Makers

The incentive covers ice machines that generate ice cubes, flaked, crushed, or fragmented ice that is 60 grams (2 oz) or less. Only air-cooled machines qualify (self-contained, ice-making heads, or remote condensing). The machine must have a minimum capacity of 101 lbs of ice per 24-hour period. The minimum efficiency required is per ENERGY STAR® or CEE Tier 2 (www.cee1.org). A manufacturer's specification sheet must accompany the application showing the rating in accordance with ARI Standard 810.

Walk In and Case Cooler/Freezer Electronically Commutated (EC) Motors

This incentive applies to replacement of an existing standard efficiency shaded pole or permanent split capacitor evaporator motor. The replacement must be an EC Motor. Final application must include photo of nameplate of the motor removed.

Pre-rinse Sprayers (< 1.6 gpm, Electric Water Heating)

A low-flow, high efficiency pre-rinse sprayer less than or equal to 1.6 gallons per minute must replace a sprayer of 2.2 gpm or greater. Most installed sprayers are 2.5 gpm or greater. Customer must be an electric customer of the utility, and use electric hot water heating.

LED Lighting for Refrigeration Cases

Incentives are for replacing fluorescent refrigerated case lighting with light emitting diode (LED) source illumination. Fluorescent lamps, ballasts, and associated hardware are typically replaced with pre-fabricated LED light bars and LED driver units. The eligibility criteria is based on DesignLights Consortium. Minimum light output must be ≥ 100 lm/ft for center-mounted lights and ≥ 50 lm/ft for end-mounted lights. Zonal lumen density must be ≥ 95 percent from 0°-80°. Minimum luminaire efficacy shall be ≥ 35 lumens/watt with a minimum CRI of 70. Allowable CCT's (per ANSI C78.377-2008) 2700K, 3000K, 3500K, 4000K, 4500K and 5000K. Minimum LED lumen maintenance at 6000 hours should be ≥ 95.8 percent. Luminaries should be warranted for a minimum of 5 years.

Occupancy Sensors for LED Refrigeration Lighting

Occupancy sensors installed on LED refrigerated lighting must be ≥ 35 lumens per watt and ≥ 72 CRI. Product must have a minimum lifetime warranty of three years.

Beverage Vending Machine Controllers

Controller must include a passive infrared occupancy sensor to turn off fluorescent lights and other vending machine systems when the surrounding area is unoccupied for 15 minutes or longer. Also, the control logic should power up the machine at a minimum of every two hours to maintain product temperature and provide compressor protection. For refrigerated beverage machines located indoors, backlighting lamps and ballasts should be removed to obtain additional energy savings.

Anti-sweat Heater Controls

A control device is installed that senses the relative humidity in the air outside of the display case and reduces or turns off the glass door (if applicable) and frame anti-sweat heaters at low-humidity conditions. Technologies that can turn off anti-sweat heaters based on sensing condensation (on the inner glass pane) also qualify. Incentive is based on the total number of doors controlled on the case.

Night Covers

Incentives are available for night covers installed on open refrigerated display cases in supermarkets and grocery stores. The purpose of night covers is to reduce the amount of cold loss from the open refrigerated display cases during facility non-operating hours. The store must have a minimum of six non-operating hours per day for this measure to qualify. To decrease moisture build-up, it is recommended that the night covers are perforated. Applicant should consider using proper compressor capacity modulation and ensure the case manufacturer has no objections to use of a night cover.

Network Power Management Software
This measure is for the control of desktop computers only. Installation must allow centralized control at the server level of the power management settings (sleep mode and shutdown) of desktop computers on a distributed network. The software must have a reporting feature that allows monitoring and validation of energy savings. Qualifying software must result from: a new installation, where none previously existed; or an upgrade of an operating system or other network support software where the desktop computer power management function did not previously exist. When contacted, customers must allow Consumers Energy access to customers' property site to verify: the software installation, the location of the installed control software (at the server level), and the number of desktop computers controlled by the system. This measure is not applicable for the control of laptop and laptop stations.

A copy of the software license agreement and a report (print-out) directly from the network energy management software that shows (a) the location and (b) the number of desktop computers that are being controlled by the system must be attached to and included with the final application.

Barrel Wraps for Injection Molders and Extruders
Insulated blankets strapped around barrels of extruders or injection molders are eligible for this incentive. Blankets must be installed on previously un-insulated barrels, per manufacturer recommendations.

Intelligent Surge Protector
This incentive applies to surge protectors with built-in plug-load detection and control capabilities. The surge protector (power strip) must include at least one uncontrolled socket, which would be a primary device. Turning the primary device (usually a computer) on or off subsequently will turn the associated controlled devices in the power strip on or off (for example, printers, monitors, etc.). The intelligent power strip also may contain sockets for devices that require a constant supply of power. These will not be affected by the "control" device.

Compressed Air Engineered Nozzle
The engineered nozzle must replace simple open pipe/tube assemblies connected to a compressed air system. Usage of the nozzles must be 2,000 hours or greater per year. The engineered nozzles must be between 1/8" and 1/2" in diameter. Air jets and nozzles must have an SCFM rating at 80 psig less than or equal to those rated in Table 1 below.

Table 1: Qualifying SCFM ratings

Size (inch)	SCFM
1/8	10
1/4	17
3/8	18
1/2	18

High Efficiency Clothes Washer (Electric Water Heater)
Incentives are available for high efficiency commercial clothes washers, which wash more clothes per load than standard clothes washers and use less water and energy. Qualified clothes washers must meet a minimum efficiency of CEE© Tier 2, with a Modified Energy Factor (MEF) ≥ 2.00 and a Water Factor (WF) ≤ 6.00.

Variable Frequency Drives on HVAC & Chiller Motors
Variable-frequency drives (VFDs) installed on existing HVAC fans and pumps are eligible for this incentive. Redundant or back-up units do not qualify. New chillers with integrated VFDs are eligible under the chiller incentive, and installing VFDs on package unit compressors may be eligible under the custom incentive. VFDs on new chillers are not eligible. The installation of a VFD must accompany the permanent removal or disabling of any throttling devices such as inlet vanes, bypass dampers, and throttling valves. VFDs for non-HVAC applications may be eligible for a custom incentive, which includes large process motors(>50HP) and air compressors. The incentive is per controlled HP.

Variable Frequency Drives for Process Pumping
VFD must be used in conjunction with a process (non HVAC) pumping application. Redundant or back-up units do not qualify. Routine replacement of existing VFDs does not qualify. VFD speed must be automatically controlled by differential pressure, flow, temperature, or other variable signal. The installation of a VFD must accompany the permanent removal or disabling of any throttling devices such as throttling valves. To qualify for this incentive, the pump must operate at least 2,000 hours per year. The incentive is per controlled HP and only eligible for controlled motors less than or equal to 50 HP.

2011 NATURAL GAS (HVAC) SPECIFICATIONS

General Clause for Heating Measures
The incentive is available only for retrofit projects using natural gas as the primary fuel source. If a dual-fuel system is used, or if natural gas is the back-up or redundant fuel, the custom incentive application should be used. Incentives for boilers are only available for equipment used for space heating, except for steam traps. Equipment for process loads may qualify for a custom incentive.

High Efficiency Space Heating Boiler
Boiler incentives are available only for equipment used for space heating. Boilers for process loads may qualify for a custom incentive. Boilers purchased for backup or redundancy are not eligible. Boilers must modulate their firing rate and have a sealed combustion unit. Applicant must submit boiler specifications with steady state boiler input and output ratings. The ratings will be defined per ANSI Standard Z21.13 and use supply and return water temperatures. Note that high efficiency condensing boilers will provide the rated efficiency only if return water is cold enough to condense the flue gases. If the heating system cannot meet the requirement, a non-condensing boiler may be a better choice. Qualifying efficiencies are shown in Table 1 below. For units with an input rating less than 300,000 BTU/h, the efficiency should be given as an AFUE value. For units with an input rating greater than or equal to 300,000 BTU/h, the efficiency should be given as a combustion efficiency value.

Table 1: Minimum efficiency requirements for gas space heating boilers

Incentive Level	Minimum Efficiency
Level 1	≥ 0.86 and < 0.90
Level 2	≥ 0.90

Boiler Oxygen Trim Control Specification
Boiler must operate a minimum of 4,000 hours per year to be eligible for this incentive. These are operating hours, not full load hours. The incentive is eligible only for retrofit projects, not for new controls on a new boiler. The incentives are only available for equipment used in space heating conditions.

Boiler Modulating Burner Control
The control must have a minimum turn down ration of 5 to 1 or greater. Boiler must operate a minimum of 4,000 hours per year to be eligible for this incentive. The incentive is eligible only for retrofit projects, not for new controls on a new boiler. The incentives are available only for equipment used in space heating conditions.

Boiler Water Reset Control
Outside air temperature reset or cutout control incentives are for existing space heating boilers only. A new boiler with boiler reset controls is not eligible. The system must be set so that the minimum temperature is not more than 10 degrees above manufacturer's recommended minimum return temperature. For controls on multiple boilers to qualify, control strategy must stage the lag boiler(s) only after the first boiler stage(s) fails to maintain the boiler water temperature called for by the reset control.

High Efficiency Furnace
Condensing furnaces must be 92 percent AFUE (Annual Fuel Utilization Efficiency) or greater and have a sealed combustion unit. Air handlers are not eligible for the incentive. Chimney liners must be installed where a high efficiency natural gas furnace replaces atmospherically drafted equipment that was vented through the same flue as a gas water heater. Flue closure protocol must be used when a high efficiency furnace is installed and the chimney is no longer in use. The incentives are available only for equipment used in space heating conditions. Equipment purchased for backup or redundancy is not eligible.

HVAC Energy Management System Specification (Pre-notification required)
Incentives are available for existing buildings that currently have no digital automated HVAC controls or outdated pneumatic control systems with inoperable time control functions. Existing HVAC control systems cannot have time of day scheduling (including 7-day programmable thermostats). Upgrading obsolete EMS HVAC system with inoperable time clock functions will be reviewed on a case-by-case basis for incentive eligibility. Buildings upgrading existing digital EMS systems are not eligible for prescriptive incentives.

HVAC EMS systems must be new and include (a) central time control, (b) real-time outside air damper positioning, (c) graphic operator interface, (d) whole building real-time power and energy monitoring capability, (e) open-protocol architecture, (f) web-based interface, (g) PC based controls, (h) have a minimum setback space temperature of at least 8°F in both heating and air condition mode, (i) minimum setback period must exceed 2,200-hours per year, and (j) at least three "enhanced" control strategies, (i.e.: critical zone hydronic heating supply temperature reset, AHU fan control, exhaust fan control, etc). Open-protocol architecture controls system shall consist of either LonTalk (ANSI/CEA 709.1) or BACNet (ASHRAE/ANSI 135) protocol being used between all controlled and controlling devices and every node on the network. If incorporated with Demand Control Ventilation, real-time carbon-dioxide monitoring at the operator interface is required. Buildings must have more than 10,000-ft2 of controlled heating space to be eligible for this prescriptive incentive. The maximum incentive available for this measure is $32,000 per facility as defined in the policies and procedures manual or 50% of the installed cost of the measure, whichever is less.

Pre-notification application must include proposed EMS sequence of operations, scaled floor-plan of building with controlled area highlighted, specifications of proposed EMS system, and estimated cost for the proposed EMS system.

Infrared Heaters (Pre-notification required)
Only building space heating applications are eligible. High-intensity and low-intensity heaters are eligible. Heaters must have electronic ignition and be replacing unit type heaters. Pre-Application shall include manufacturer certified infrared heater layout with locations of existing unit heater being replaced. Infrared heaters must be installed per manufacturers recommendations. Minimum ceiling height must be 14 feet. End of life replacement of an existing infrared heater does not qualify.

Programmable Thermostat
Programmable Thermostat must have the capability of enabling the user to set one or more time periods each day when a comfort set point temperature needs to be maintained and one or more time periods each day when an energy-saving set point temperature needs to be maintained.

Hotel Guestroom Occupancy Sensor (Gas Heat)
Incentives are available for sensors that control natural gas heating units for individual hotel rooms. Sensors controlled by a front desk system are not eligible. Sensors must be controlled by automatic occupancy detectors, and it is recommended that during unoccupied periods, the default setting for controlled units differ by at least 8 degrees from the operating set point. The incentive is per guest room controlled, not per sensor. For multiroom suites the incentive is available per room controlled, if a sensor is installed in each room. Replacement or upgrades of existing occupancy-based controls are not eligible as a prescriptive incentive.

Demand Control Ventilation
Install ventilation controls on existing buildings that use carbon dioxide levels to measure occupancy and modify the percentage of outside air based on variable levels. Only building with space heating and cooling applications are eligible. Conditioned spaces must be kept between 65ºF and 75ºF during operating hours. Systems must have current fresh air requirements equal or greater to 10 percent of supply air requirements. Carbon dioxide (CO_2) sensors must be installed in conjunction with fully functioning air side economizers. Dual temperature air-side economizers with zone-level CO_2 sensors for rooftop units qualify, and return system CO_2 sensors are required for built up systems. Controlled space must meet the minimum requirements of the current ASHRAE 62 standard, as well as all local building code, and manufacturer's recommendations. The incentive is calculated per square foot of area controlled. **Must submit floor plan with Final Application.**

Steam Trap Survey and Repair/Replacement

The customer may apply for the survey incentive, the repair incentive, or both. The survey incentive is available for all steam traps, functional, failed closed, or plugged. The survey incentive is limited to $5,000 per facility. The repair incentive is available only for repair or replacement of traps that have malfunctioned and are leaking steam. It is not available for traps that have failed closed or are plugged. The incentive is available once in a 24 month period. Replacement with an orifice trap is not eligible for incentive. Steam trap survey and repair work must be recorded and attached to the incentive application by the vendor. A spreadsheet with survey/repair/replacement results must be provided. At a minimum the spreadsheet must contain the following:

- System nominal steam pressure
- Annual hours of operation
- Number of steam traps serviced
- Per steam trap:
  - o ID tag number
  - o Location type of trap
  - o Type of trap
  - o Orifice size (if repair or replaced)
- Functioning
- Malfunctioning, not leaking steam
- Malfunctioning, leaking steam
  - o Survey/repair date
  - o Survey/repair technician

Pipe Wrap - Hydronic Space Heating or Steam Space Heating (Pre-notification required)

This measure applies only to existing hydronic heating piping systems operating at a minimum design supply water temperature of 180°F or steam heating piping systems, which currently have no insulation. Piping must be located in non-conditioned areas. New piping or recently repaired piping does not qualify for this incentive. A minimum of R-4 of pre-formed insulation must be added to existing bare metal pipe. The pipe size must be at least ½-inch to 2-½-inch nominal pipe diameter. 3-inch nominal pipe diameter and larger may qualify as a Custom Measure. A minimum of 10 linear feet of pipe must be insulated. This incentive is limited to a maximum of 500-linear feet per boiler system. Insulation used for pipes should be high density fiberglass insulation, or closed-cell elastomeric foam insulation, shaped for pipes and blankets, batts of fiberglass or mineral wool for flat sections. Applications must include the manufacturer's name, insulation material type, and the material k-value or R-value rating. All hot surfaces should be insulated. Insulating un-insulated process piping does not qualify for this incentive, but may qualify as a Custom Measure.

Pipe Wrap - Domestic Hot Water Piping (Pre-notification required)

This measure applies only to existing domestic hot water and domestic hot water return piping systems operating at a minimum of 140°F domestic hot water supply temperature, that currently have no insulation on the piping. New or recently repaired piping does not qualify for this incentive. A minimum of R-4 (approximately 1-inch) of pre-formed pipe insulation must be added to existing bare metal pipe system applications. The bare pipe size must be at least 1/2-inch diameter. A minimum of 10 linear feet of pipe must be insulated. This incentive is limited to a maximum of 500-linear feet per boiler system. Insulation used for pipes should be high density fiberglass insulation, or closed-cell elastomeric foam insulation. Applications must include the manufacturer's name, insulation material type, and the material k-value or R-value rating. All hot surfaces should be insulated. Non-conditioned spaces are not temperature controlled. Conditioned spaces must be air conditioned to qualify for the incentive.

Low Flow Showerheads - < 1.5 gpm (Gas Water Heater)

A low-flow, high efficiency showerhead using less than or equal to 1.5 gallons per minute must replace a sprayer of 2.5 gpm or greater. Customer must be a gas customer of the utility, and use gas fueled water heating.

Pre Rinse Sprayers - < 1.6 gpm (Gas Water Heater)

A low-flow, high efficiency pre-rinse sprayer less than or equal to 1.6 gallons per minute must replace a sprayer of 2.2 gpm or greater. Most installed sprayers are 2.5 gpm or greater. Customer must be a gas customer of the utility, and use gas fueled water heating.

Gas Storage Water Heater

Heater must replace existing natural gas water heater that meets the criteria in Table 2 shown below.

Table 2: Minimum efficiency requirements for gas storage water heaters.

Size (Gallons)	Minimum Efficiency
≤ 80	0.67 Energy Factor
> 80	88% Thermal Efficiency

Gas Tankless Water Heater
Heater must replace existing natural gas water heater. Unit must be power vented with an Energy Factor of 0.82 or greater.

High Efficiency Pool Heater
Heater must be equal to or greater than 84 percent thermal efficiency and must replace pre-existing pool heater. Heater must be rated between 500,000 BTU/H and 2,000,000 BTU/H. Must have an on/off switch and have no pilot light. The pool heater cannot be used as a back-up for solar water-heating.

Pool Covers
The pool size must be between 400 square feet to 4,000 square feet to qualify for the incentive. Equipment must be new. Cover must be a manual, semi-automatic or automatic pool cover.

Dry Cleaner Boiler Tune-up
This measure involves cleaning the inside surface of boiler tubes to reduce mineral deposits, burner cleaning, and hot water line insulation. Boiler must be a tube or kettle boiler system ranging in size from 320-840 kBtu/H. Incentives will be paid once per boiler, per 5 year period. Boilers that are larger than 840 kBtu/Hr are eligible for a custom incentive.

Laundry Ozone Generation System
The system must utilize a natural gas water heater or natural gas-fired boiler that supplies hot water to an on-premise laundry system. Incentives will be paid for a newly purchased product that is added-on to a new or existing commercial washing machine(s). The Ozone laundry system must transfer ozone into the water through Venturi Injection or Bubble Diffusion.

Greenhouse Heat Curtains
Heat curtains are required to be installed for heat retention in an existing gas-heated commercial growing greenhouse for agricultural use. Curtains that are eligible for incentive must have been designed by the manufacturer to be a heat curtain. The incentive applies to either a new curtain, where none previously existed, or replacing an existing curtain that is no longer functional. All heat curtains must have a natural gas savings rating of 40 percent or better and have a warranty or an effective product life of five years. Installation must allow the curtain(s) to be automatically moved or manually moved into place. Incentive square footage will not exceed the square footage of the greenhouse floor, overhang or overlap material will not be included in incentive calculation.

Greenhouse Infrared Film
Film must be infrared, anti-condensate, polyethylene plastic with a minimum thickness of 6 mils. Incentive is only for use in an existing, gas-heated greenhouse. This incentive does not apply to a new construction project. infrared coating must be applied via the factory to the film, coatings applied onsite to existing film does not qualify.

High Efficiency Clothes Washer (Gas Water Heater)
Incentives are available for high efficiency commercial clothes washers, which wash more clothes per load than standard clothes washers and use less water and energy. Qualified clothes washers must meet a minimum efficiency of CEE Tier 2 (MEF ≥ 2, WF ≤ 6).

Truck Loading dock seals
These incentives are intended to reduce air infiltration at truck loading docks. Seals must effectively close all gaps between the building and semi trailer. To qualify, building interior space must be heated during winter. Dock door seals must extend out to fill the gap between the dock door and the trailer, including the "hinge gap" that occurs with outwardly swinging trailer doors.
Leveler ramp air seals reduce air infiltration from around the loading dock leveler ramp. Air seals may be attached to the exterior of the building or around the edge of the ramp, and must maintain an effective seal both when ramp is in use (raised or lowered) or out of use. Brush-type or whisker-type perimeter/edge seals may be used in conjunction with air seals, but do not qualify for incentive. Incentive is not available for the replacement of existing air seals.

High Efficiency Process Boiler
This rebate is available to industrial end-use customers who utilize boilers as an integral part of a manufacturing process. Boilers must meet a minimum combustion efficiency of 82 percent as installed. Only process boilers (i.e., units not primarily used for domestic hot water, space conditioning, pool or spa use) qualify. The manufacturer name and equipment model number must be provided. A flue gas analysis measured under full load conditions is required to document combustion efficiency after installation is complete.

Flat Roof Insulation (Pre-notification required)
This incentive is for adding insulation to existing buildings. Total roof area must be less than 150,000 $ft^{2.}$ Roof insulation must be installed in a space that requires natural gas fired space heating. All materials must be new and meet applicable state and local codes and must be installed in accordance with the manufacturer's requirements. "Insulation Entirely above Deck" and "Metal Building" (as defined by ASHRAE 90.1 2007) roof insulation is eligible for the incentive only when it is installed between the conditioned and unconditioned areas. Insulation installed above dropped commercial ceilings is not eligible. Pre-retrofit insulation levels must be less than R-11 and final insulation assembly level must exceed R-24 and/or local building codes. Pre-Applications will require the following: a) a scaled floor plan of the facility's total roof area (ft^2) being insulated, b) a roof construction detail (sketch) showing a section cut of the existing roof, c) roof construction detail (sketch) showing a section cut of the proposed roof, and d) specifications of the proposed roof insulation. Pre-construction pictures of the condition of the existing roof insulation would also be beneficial. The maximum incentive available for this measure is $20,000 per facility as defined in the policies and procedures manual. Buildings with a roof area larger than 150,000 ft^2 are eligible for a custom incentive.

Attic Roof Insulation (Pre-notification required)
This incentive is for adding insulation to existing buildings. Roof insulation must be installed in a space that requires natural gas fired space heating. All materials must be new and meet applicable state and local codes and must be installed in accordance with the manufacturer's requirements. "Attic and Other" (as defined by ASHRAE 90.1 2007) roof insulation is eligible for the incentive only when it is installed between the conditioned and unconditioned areas. Insulation installed above dropped commercial ceilings is not eligible. Pre-retrofit insulation levels must be less than R-11 and final insulation assembly level must exceed R-42 and/or local building codes. Pre-Applications will require the following: a) a scaled floor plan of the facility's total roof area (ft^2) being insulated, b) a roof construction detail (sketch) showing a section cut of the existing roof, c) roof construction detail (sketch) showing a section cut of the proposed roof, and d) specifications of the proposed roof insulation. Pre-construction pictures of the condition of the existing roof insulation would also be beneficial. The maximum incentive available for this measure is $15,000 per facility as defined in the policies and procedures manual.

Wall Insulation (Pre-notification required)
Wall insulation must be installed in a space that has natural gas fired space heating. All installed materials must be new and meet or exceed all applicable local, state, and federal standards. To qualify existing walls cannot be insulated. The final insulation levels should exceed R-13 and/or local code for the building type. Incentives will be paid on total square footage of wall insulation.

Flexible Batch Broilers
This incentive applies towards the replacement of an existing conveyor-based gas broiler. New construction projects do not qualify for a rebate with this measure. Existing broiler must be removed and disposed of in accordance with local and state codes.

Commercial Conveyor Ovens
A conveyor oven can be described as a heated chamber with a moving belt that carries food product into and through the chamber. The commercial oven(s) must meet or exceed baking energy efficiency of 42 percent. Ovens with a conveyor width up to 25" in length must have an idle energy rate of less than or equal to 29,000 BTU/H. Ovens with a conveyor width over 25" in length must have an idle energy rate of less than or equal to 57,000 BTU/H. Multiple-deck oven configurations are paid per qualifying oven deck. Used or rebuilt equipment does not qualify.

2011 CUSTOM SPECIFICATIONS

Custom projects must involve a facility improvement that results in a permanent reduction in electrical (kWh) and/or natural gas energy usage (MCF) because of an increase in system efficiency. Projects that result in reduced energy consumption without an improvement in system efficiency are not eligible for a custom incentive. However, projects that involve an automated control technology, such as energy management system programming, may be eligible for an incentive. All equipment purchased for custom projects must be new.

Projects involving measures covered by the prescriptive incentive portion of the program are not eligible for a custom incentive. Applicants have the option to apply for a custom incentive for projects that involve an integrated solution with both prescriptive and custom measures.

Projects that are NOT eligible for an energy efficiency incentive include the following:
– Fuel switching (e.g. electric to gas or gas to electric)
– Changes in operational and/or maintenance practices or simple control modifications not involving capital costs
– On-site electricity generation
– Projects that involve peak-shifting (and not kWh savings)
– Renewable energy

Project payback equals the ratio of the project cost divided by the annual energy bill savings. Project payback must be greater than or equal to one year and less than or equal to eight years to be eligible for a custom incentive.

The applicant is required to submit a Pre-notification application for all custom projects while the existing equipment is still in operation in order to allow Consumers Energy the opportunity to verify the existing equipment.

Requirements for Custom Project Electricity and/or Natural Gas Savings Calculation
The annual electricity and/or gas savings must be calculated for custom projects using industry accepted engineering algorithms or simulation models. The applicant must estimate the annual electricity and/or gas usage of both the existing and proposed equipment based on the current operation of the facility. If the existing equipment is at the end of its useful life, the applicant must substitute equipment that would meet the applicable federal and local energy codes when calculating the annual energy savings.

The applicant must submit calculations and methods used to derive the savings. The applicant must provide all assumptions used in the calculations and document the source for these assumptions. Consumers Energy will review the submittal. Consumers Energy is solely responsible for the final determination of the annual energy savings to be used in calculating the incentive amount. Consumers Energy may need to conduct inspections both before and after the retrofit projects to verify equipment and operation conditions. Consumers Energy also reserves the right to require specific measurement and verification activities including monitoring both before and after the retrofit and to base the incentive payment on the results of these activities.